

SKT 40



Stud Thyristor

Line Thyristor

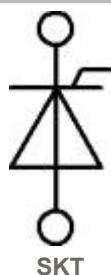
SKT 40

Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M8
- International standard case

Typical Applications

- DC motor control
(e. g. for machines tool)
- Controlled rectifiers
(e. g. for battery charging)
- AC controllers
(e. g. for temperature control)
- Recommended snubber network
e. g. for $V_{VRMS} \leq 400$ V:
 $R = 68 \Omega / 11$ W, $C = 0,22 \mu F$



V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 63$ A (maximum value for $I_{TAV} = 40$ A (sin. 180; T
500	400	SKT 40/04D
700	600	SKT 40/06D
900	800	SKT 40/08D
1300	1200	SKT 40/12E
1500	1400	SKT 40/14E
1700	1600	SKT 40/16E
1900	1800	SKT 40/18E

Symbol	Conditions	
I_{TAV}	sin. 180; $T_c = 100$ (85) °C;	
I_D	K5; $T_a = 45$ °C; B2 / B6 K3; $T_a = 45$ °C; B2 / B6	
I_{RMS}	K3; $T_a = 45$ °C; W1C	
I_{TSM}	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 130$ °C; 10 ms	
i^2t	$T_{vj} = 25$ °C; 8,35 ... 10 ms $T_{vj} = 130$ °C; 8,35 ... 10 ms	
V_T	$T_{vj} = 25$ °C; $I_T = 120$ A	
$V_{T(TO)}$	$T_{vj} = 130$ °C	
r_T	$T_{vj} = 130$ °C	
I_{DD}, I_{RD}	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	
t_{gd}	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/ μ s	
t_{gr}	$V_D = 0,67 * V_{DRM}$	
$(di/dt)_{cr}$	$T_{vj} = 130$ °C	
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C ; SKT ...D / SKT ...E	
t_q	$T_{vj} = 130$ °C ,	
I_H	$T_{vj} = 25$ °C; typ. / max.	
I_L	$T_{vj} = 25$ °C; $R_G = 33 \Omega$; typ. / max.	
V_{GT}	$T_{vj} = 25$ °C; d.c.	
I_{GT}	$T_{vj} = 25$ °C; d.c.	
V_{GD}	$T_{vj} = 130$ °C; d.c.	
I_{GD}	$T_{vj} = 130$ °C; d.c.	
$R_{th(j-c)}$	cont.	
$R_{th(j-c)}$	sin. 180	
$R_{th(j-c)}$	rec. 120	
$R_{th(c-s)}$		
T_{vj}		
T_{stg}		
V_{isol}		
M_s	to heatsink	
a		
m	approx.	
Case		

Diagrams



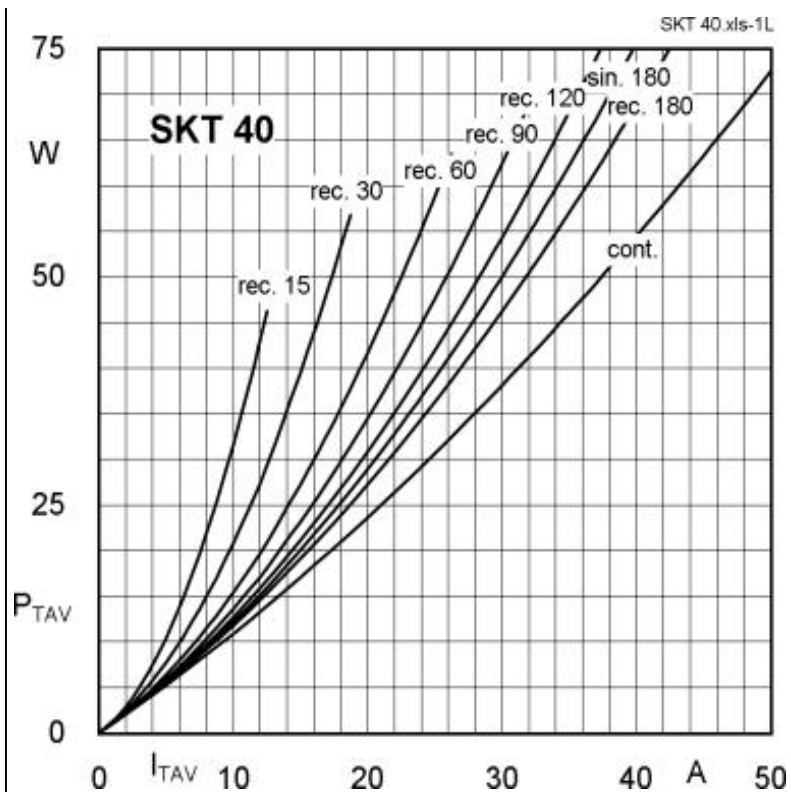


Fig. 1L Power dissipation vs. on-state current

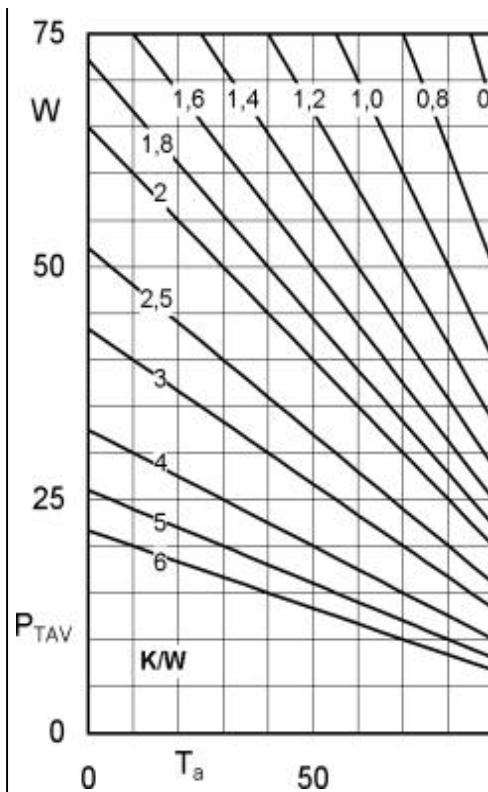


Fig. 1R Power dissipation vs. ambient temperature

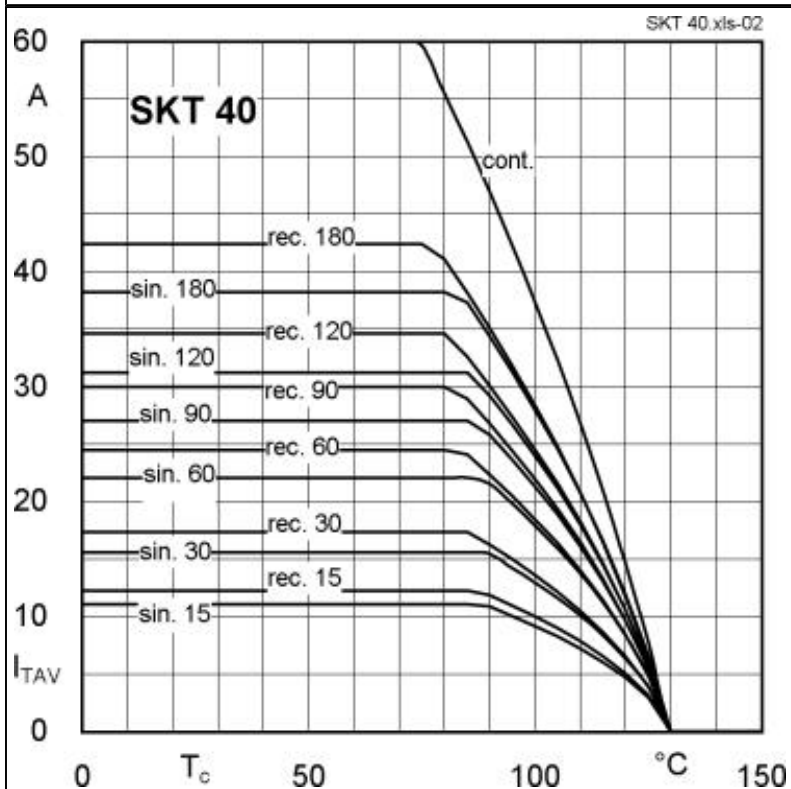


Fig. 2 Rated on-state current vs. case temperature

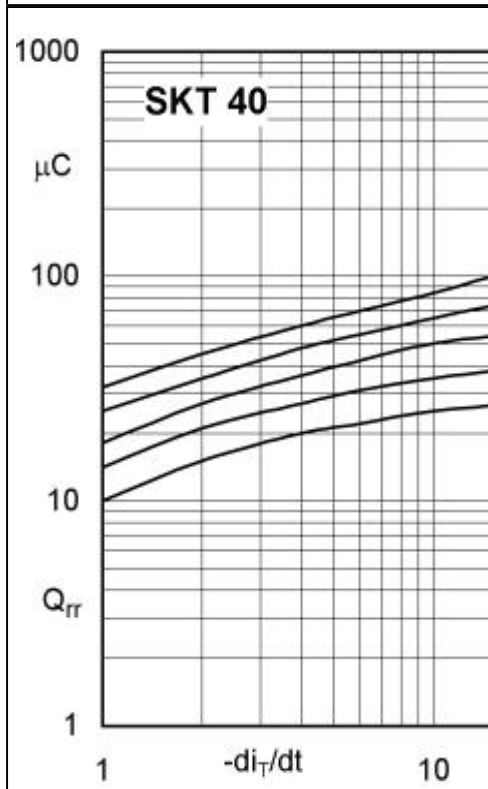


Fig. 3 Recovered charge vs. current decrease

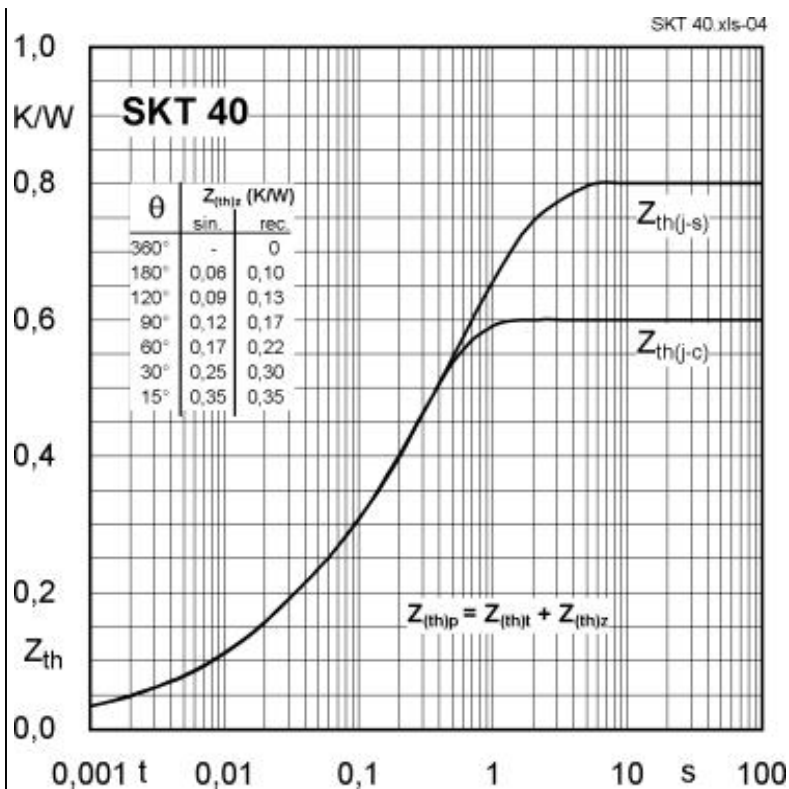


Fig. 4 Transient thermal impedance vs. time

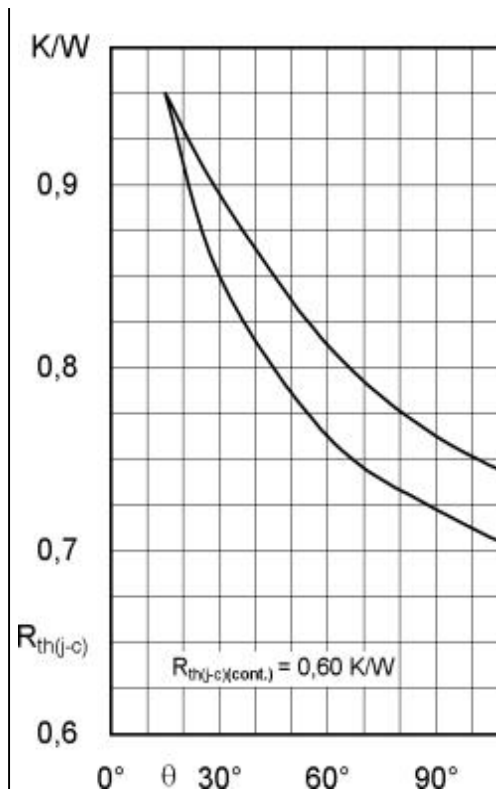


Fig. 5 Thermal resistance vs. conduction angle

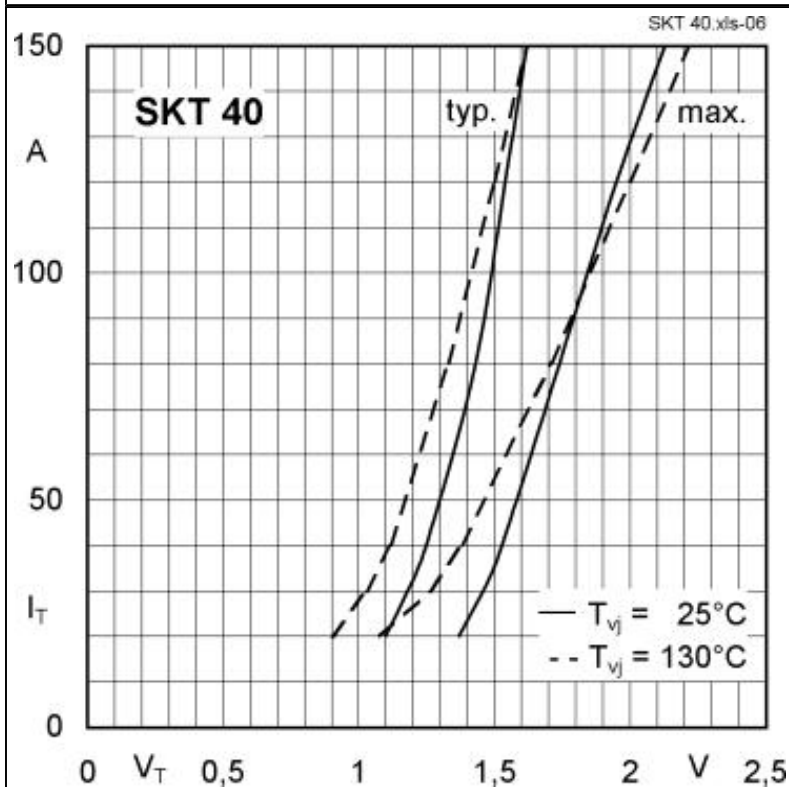


Fig. 6 On-state characteristics

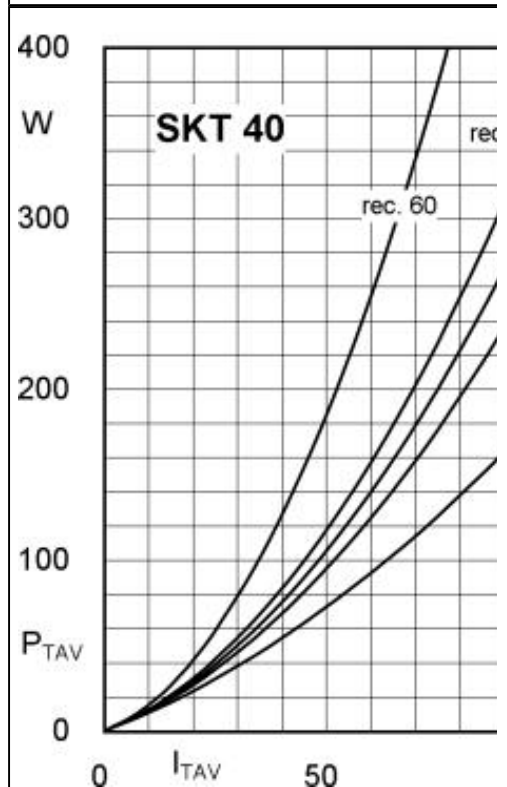
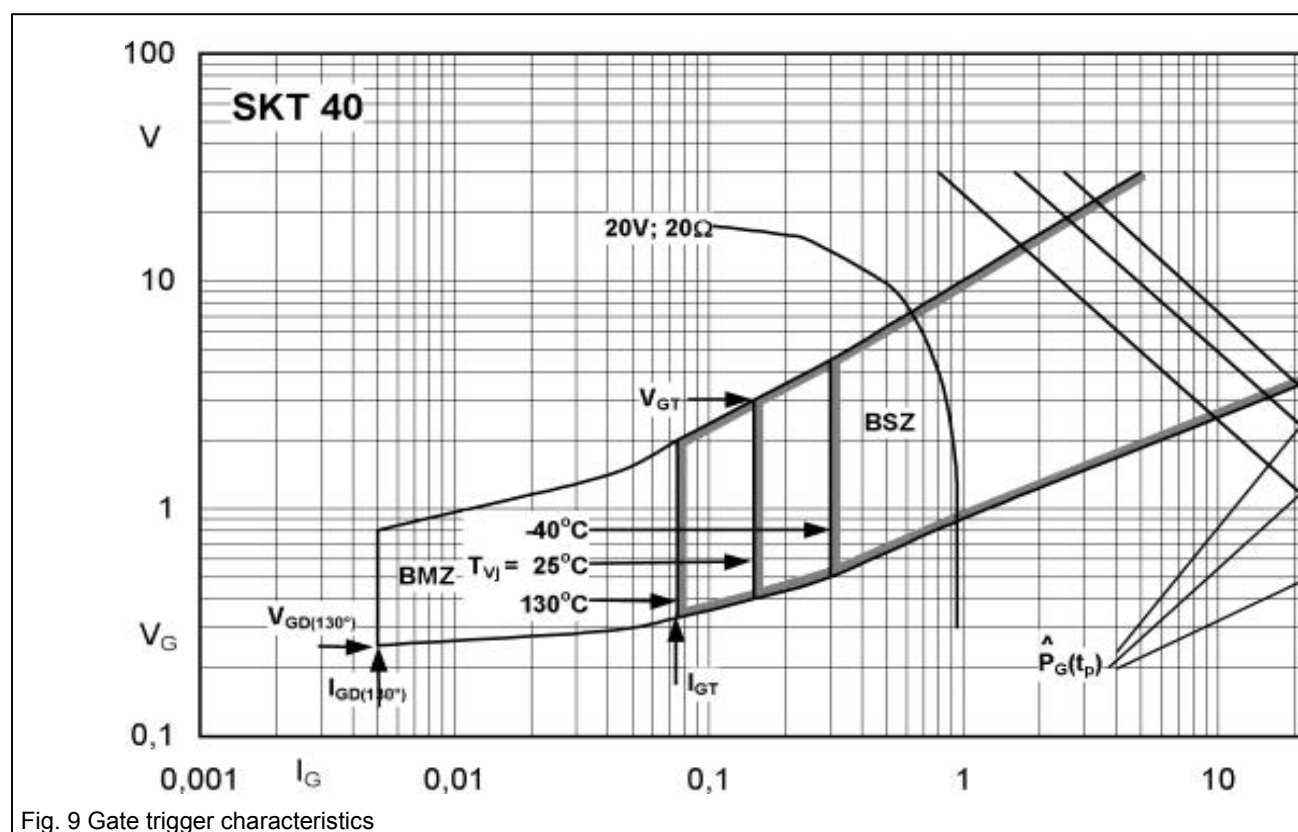
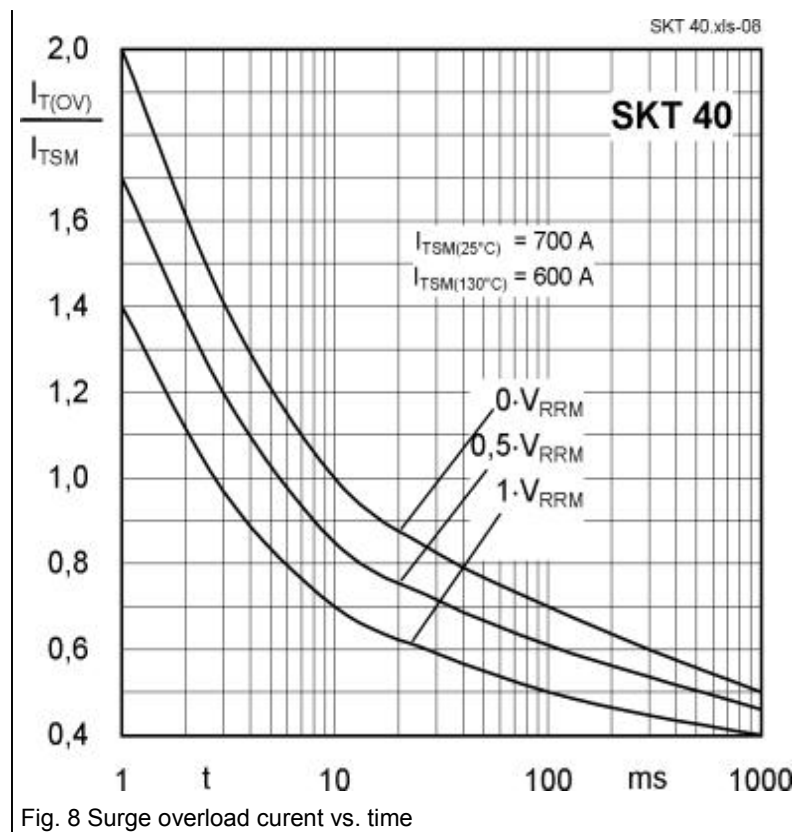
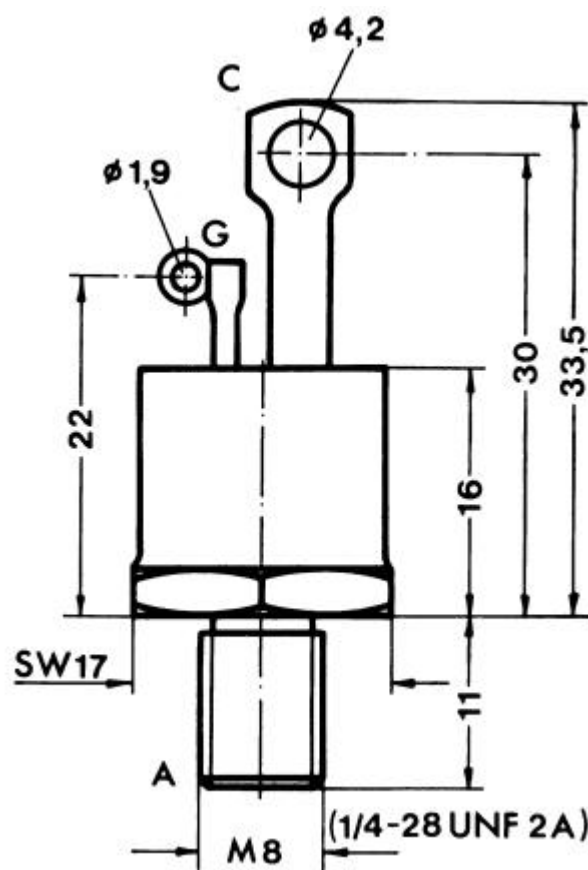


Fig. 7 Power dissipation vs. on-state current



Cases / Circuits



Case B 3 (IEC 60191-2: A38MA, A14U; JEDEC: TO-208AC (TO-65))

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